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10/796,360

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Robert Galli

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BARLOW, JOSEPHS & HOLMES, LTD.  
101 DYER STREET  
5TH FLOOR  
PROVIDENCE, RI 02903

EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/796,360

Applicant(s)

GALLI, ROBERT

Examiner

Hargobind S. Sawhney

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/9/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features of the invention must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim 3, line 2, "a void in said rear surface of said mounting die"; and

Claim 4, line 3, "a void in said rear surface of said mounting die". It appears that there is a void in addition to that recited in Claim 3.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

Page 10, Para. 16, lines 2-5, specifies the second contact 24 of the LED lamp 12 being electrically insulated from the mounting die 14. On the other hand, Claim 2 contradicts the above-given specified matter. Claim 2 recites the second lead of the LED being electrical communication with the mounting die. It appears that specified the numeral identifications of the first and the second contact should be switched.

The specification does not clearly and positively identifies the limitation "a void in said rear surface of said mounting die" recited in each of claims 3 and 4.

Appropriate correction is required.

Claims 2 and 3 of the instant application have been examined considering the limitation "said second contact" as --the first contact --, and the "said first contact" as --the second contact--.

### ***Claim Objections***

3. Claims 3-6 are objected to because of the following informalities:

Claim 3, line 2, "a void in said rear surface of said mounting die"; is not understood as it is neither specified nor shown in figures in a clear manner. Similar deficiency exists in Claim 4; therefore Claim 4 is also objected.

Appropriate correction is required.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 15 of U.S. Patent No.6, 827,468 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other as detailed below.

|                                   |                                   |  |
|-----------------------------------|-----------------------------------|--|
| Instant Application<br>10,796,360 | U.S. Patent No.:<br>6, 827,468 B2 | Discussion on differences, and additional<br>References: |
|-----------------------------------|-----------------------------------|--|

|         |         |  |
|---------|---------|--|
| Claim 1 | Claim 1 | US Patent ('468 B2), Claim 1, lines 1-11, meets most of the limitations of the Claim 1 of the instant application. US Patent ('468 B2), Claim 1, lines 1-11, recites an interior die having a recess |
|---------|---------|--|

|         |         |   |
|---------|---------|---|
|         |         | <p>– herewith interpreted as a cavity – receiving and frictionally retaining an LED with a heat transfer bottom plate. However, US Patent ('468 B2), Claim 1, lines 1-11, does not specifically recite the cavity being defined by side plates extending from the bottom plate.</p> <p>It would be have been obvious to one of ordinary skill to realize that configuration of a cavity from the face of the mounting die would require sidewalls extending from the bottom surface of the mounting die.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 1-11 meets the limitations of Claim 1 of the instant application.</p> |
| Claim 2 | Claim 1 | As best understood, US Patent ('468 B2), Claim 1, lines 12 and 13, meets the limitations of Claim 2 of the instant application.   |
| Claim 3 | Claim 1 | Thus, Claim 1, lines 13-17 of the US Patent ('468 B2) meets the limitations of Claim 3 of the instant application. Note: the channel recited in lines 13-17 has been considered as the "void".  |
| Claim 4 | Claim 1 | As best understood, US Patent ('468 B2), Claim 1, lines 13-17, meets the limitations of Claim 4 of  |

| Instant Application<br>10,796,360 | U.S. Patent No.:<br>6, 827,468 B2 | Discussion on differences, and additional<br>References:  |
|-----------------------------------|-----------------------------------|---|
| Claim 4                           | Claim 1                           | The instant application in similar manner, as detailed above, and as that applied for the rejections of claims 2 and 3 of the instant application.  |
| Claim 5                           | Claim 3                           | As best understood, US Patent ('468 B2), Claim 3, lines 3-5, meets the limitations of Claim 5 of the instant application.   |
| Claim 6                           | Claim 1                           | US Patent ('468 B2), Claim 1, lines 19-24, recites means – exterior enclosure – assembling the LED, the mounting die and the circuit board. Thus, US Patent ('468 B2), Claim 1, lines 19-24, meets the limitations of Claim 5 of the instant application.   |
| Claims 7 and 8                    | Claim 1                           | US Patent ('468 B2), Claim 1, lines 1-11, meets most of the limitations of the claims 7 and 8 of the instant application. US Patent ('468 B2), Claim 1, lines 1-11, recites an interior die having a recess – herewith interpreted as a cavity – receiving and frictionally retaining an LED with a heat transfer bottom plate. However, US Patent ('468 B2), Claim 1, lines 1-14, does not specifically recite |

|                                   |                                   |  |
|-----------------------------------|-----------------------------------|--|
| Instant Application<br>10,796,360 | U.S. Patent No.:<br>6, 827,468 B2 | Discussion on differences, and additional<br>References:   |
| Claims 6 and 7                    | Claim 1                           | <p>the cavity being defined by side plates extending from the bottom plate.</p> <p>It would be have been obvious to one of ordinary skill to realize that configuration of a cavity on upper face of the mounting die would require sidewalls extending from the bottom surface of the mounting die.</p> <p>In addition, US Patent ('468 B2), Claim 1, lines 1-11 recited the LED assembly including means- a heat transfer plate – thermally communicating with the mounting die.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 1-11 meets the limitations of claims 7 and 8 of the instant application.</p> |
| Claim 9                           | Claim 1                           | <p>US Patent ('468 B2), Claim 1, lines 19-24, recites means – exterior enclosure – assembling the LED, the mounting die and the circuit board.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 19-24, meets the limitations of Claim 9 of the instant application.</p>  |



|          |          |  |
|----------|----------|--|
| Claim 10 | Claim 15 | Thus, US Patent ('468 B2), Claim 15, lines 1-19, 31, and 42-45, meets the limitations of Claim 9 of the instant application. |
|----------|----------|--|

It would be have been obvious to one of ordinary skill in the art at the time of the invention to meet the limitations of claims 1-10 with the claimed features of claims 1,3 and 15 of U.S. Patent No.: 6, 827,468 B2.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojnarowski et al. (US Patent No.: 6,452,217 B1).

Regarding Claim 1, Wojnarowski et al. ('217 B1) discloses a light emitting diode (LED) assembly 30 (Figure 11, column 5, lines 56- and 57) comprising:

- an LED 36 having a front luminescent portion (Figure 11, column 8, line 57); a mounting base including a heat transfer plate 37 – the planar

- surface portion bearing the LED 36 - positioned on the rear surface of the mounting base (Figures 9 and 11, column 5, lines 21-23 and 57);
- a thermally- conductive mounting die 34– the metal structure integral with the left-hand element 34, including a bottom surface – bearing the LED 36 – and a side wall extending upwardly from the bottom surface, and forming a cavity receiving the LED 36 (Figures 7 and 11); and
- the heat transfer plate 37 in thermal communication with the bottom surface of the mounting die 34 (Figures 9 and 11, column 5, lines 21-23).

Wojnarowski et al. ('217 B1) discloses a light emitting diode (LED) assembly including a metallic mounting die bearing an LED. However, Wojnarowski et al. ('217 B1) does not specifically teach the mounting die being thermally conductive.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to realize that the mounting die as taught by Wojnarowski et al. ('217 B1) is metallic, therefore it is thermally conductive.

Regarding claims 2-5, Wojnarowski et al. ('217 B1) discloses the light emitting diode (LED) assembly further comprising:

- the first contact lead 44 – the left lead 44 directly connected to the mounting die 34 (Figure 11, column 5, lines 56 and 57);
- a void- a physical clearance between the left element 34 connected to the mounting die, and the second contact lead -right hand element 34 - (Figure 11) – in the rear surface of the mounting base (Figure 11);

- the void in the rear surface corresponding to the second contact lead of the LED 36 (Figure 11), and the void preventing the second contact lead from contacting the mounting die electrical contact.
- a circuit board positioned adjacent to the mounting die 34, and being in electrical communication with LED 36 (Figure 12, column 6, line 57-59);

Regarding Claim 6, Wojnarowski et al. ('217 B1) discloses the light emitting diode (LED) assembly useable for either for a flashlight, and the LED assembly being encased with an a casing bearing a lens element 80 (Figures 16-18).

Regarding claims 7-9, Wojnarowski et al. ('217 B1) discloses the light emitting diode (LED) assembly meeting the limitations in similar manner as that applied for the rejection of claims 1-4 and 6 as detailed above.

Regarding Claim 10, Wojnarowski et al. ('217 B1) discloses a flashlight assembly (Figure 18) assembly comprising:

- a battery 92 with a first and second electrical contacts - element 85 and the bottom metallic surface - (Figure 18, column 8, line 51);
- a flashlight head assembly – combination including elements 36, 44, 63, 64- connected to the battery (Figure 18);
- an LED 36 having a front luminescent portion (Figure 11, column 8, line 57); a mounting base including a heat transfer plate 37 – the planar surface portion bearing the LED 36 - positioned on the rear surface of the mounting base (Figures 9 and 11, column 5, lines 21-23 and 57);

- a thermally- conductive mounting die 34– the metal structure integral with the left-hand element 34 – including a bottom surface – bearing the LED 36 – and a side wall extending upwardly from the bottom surface, and forming a cavity receiving the LED 36 (Figures 7 and 11); and
- the heat transfer plate 37 in thermal communication with the bottom surface of the mounting die 34 (Figures 9 and 11, column 5, lines 21-23);
- an exterior enclosure – combination including elements 63, 64, 88 and 82 – (Figure 18); and
- means 81 – switch - selectively energizing the LED 36 electrically communicating with the first and second electrical contacts of the battery 92 (Figures 17 and 18, column 8, lines 28-30).

Wojnarowski et al. ('217 B1) discloses a light emitting diode (LED) assembly including a metallic mounting die bearing an LED. However, Wojnarowski et al. ('217 B1) does not specifically teach the mounting die being thermally conductive.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to realize that the mounting die as taught by Wojnarowski et al. ('217 B1) is metallic, therefore it is thermally conductive.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Opilka (U.S. Patent Application Pub. No. US 2003/0095408 A1), Petroski (US Patent No.: 6,481,874 B2) and Wojnarowski et al. (U.S. Patent No. 6,407,411 B1)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/18/2005

  
Stephen Husar  
Primary Examiner